

(19) World Intellectual Property
Organization
International Bureau



541598
05 JUL 2005



(43) International Publication Date
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number
WO 2004/062591 A2

- (51) International Patent Classification⁷: **A61K**
- (21) International Application Number:
PCT/US2004/000320
- (22) International Filing Date: 6 January 2004 (06.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/438,343 6 January 2003 (06.01.2003) US
60/473,246 22 May 2003 (22.05.2003) US

(71) Applicant (for all designated States except US): **OREGON HEALTH AND SCIENCE UNIVERSITY** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MOSES, Ashlee** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US). **FRUH, Klaus** [US/US];

2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US). **KING, Jeffrey, S.** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US). **HICKS, James, B.** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US). **RAGGO, Camilo** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US). **NELSON, Jay** [US/US]; 2525 Sw First Avenue, Suite 120, Mail Code Ad120, Portland, Or 97201 (US).

(74) Agents: **DAVISON, Barry, L.** et al.; 2600 Century Square, 1501 Fourth Avenue, Seattle, WA 98101-1688 (US).

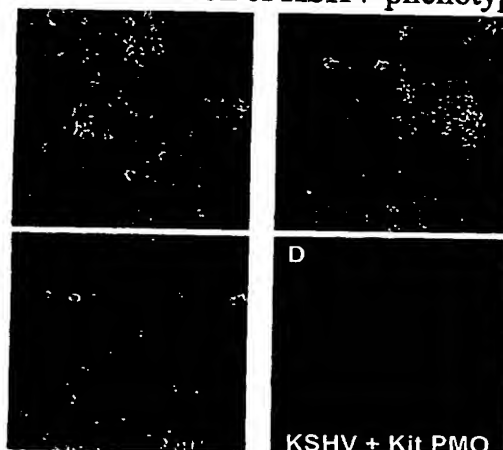
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: METHODS OF TREATMENT AND DIAGNOSIS OF KAPOSI'S SARCOMA (KS) AND KS RELATED DISEASES

PMO inhibition of KSHV phenotype



(57) Abstract: The present invention uses gene expression profiling, and gene silencing methods to identify and provide a plurality of 'validated' KSHV-induced cellular gene sequences and pathways useful as targets for modulation of KSHV-mediated effects on cellular proliferation and phenotype (e.g., cancer) associated with latent and lytic phases of the Kaposi's sarcoma-associated herpesvirus (KSHV; Human herpesvirus 8; HHV8) life cycle. Particular embodiments provide therapeutic compositions, and methods for modulation of KSHV infection or KSHV-mediated effects on cellular proliferation and phenotype, comprising inhibition of KSHV-induced gene sequences. Additional embodiments provide screening assays for compounds useful to modulate KSHV infection or KSHV-mediated effects on cellular proliferation and phenotype. Further embodiments provide diagnostic and/or prognostic assays for KSHV infection.

WO 2004/062591 A2



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.